



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
---------------	-------------	----------------------	---------------------

08/300,492 09/02/94 SHIRAGA

S 35.61271

EXAMINER

LOUI, M

ART UNIT

PAPER NUMBER

9

2609

DATE MAILED:

03/28/96

26M2/0328

FITZPATRICK CELLA HARPER AND SCINTO
277 PARK AVENUE
NEW YORK NY 10172

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 1/22/96 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), - days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- ☒ Notice of References Cited by Examiner, PTO-892.
- ☐ Notice of Draftsman's Patent Drawing Review, PTO-948.
- ☐ Notice of Art Cited by Applicant, PTO-1449.
- ☐ Notice of Informal Patent Application, PTO-152.
- ☐ Information on How to Effect Drawing Changes, PTO-1474.
- ☐

Part II SUMMARY OF ACTION

1. ☒ Claims 1-8 are pending in the application.

Of the above, claims _____ are withdrawn from consideration.

2. ☒ Claims 2-3 have been cancelled.

3. ☐ Claims _____ are allowed.

4. ☒ Claims 1, and 4-8 are rejected.

5. ☐ Claims _____ are objected to.

6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☒ The proposed additional or substitute sheet(s) of drawings, filed on 1/22/96, has (have) been ☒ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).

12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

Art Unit: 2209

Part III DETAILED ACTION

1. This Office Action is made in response to the applicant's AMENDMENT, filed 1/22/96 (entered into the file wrapper on 2/14/96, as Paper No. 7, Amendment A).

Drawings

2. The objection to the drawings from the previous Office Action is maintained because the drawings contain foreign language and characters, which should be eliminated. Correction is required. See Response to Amendment section, *infra*.

Specification

3. The disclosure is objected to (as necessitated by the applicant's AMENDMENT Paper No. 7) because of the following informalities: punctuation mark --- should be added after the terms "unit 1102" (specification, at p.11, line 21) to complete the sentence. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in

Art Unit: 2209

section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

5. Claims 1 and 4-8 are rejected under 35 U.S.C. § 103 (as necessitated by the applicant's *AMENDMENT* Paper No. 7) as being unpatentable over Nanno et al (U.S. Patent No. 5,239,495) in view of Wycoff et al (U.S. Patent No. 5,384,564), and further in view of Sloan (U.S. Patent No. 5,130,659).

Nanno teaches: means (30, 31a, 31b in Figure 1) for deriving remaining battery capacity (at col. 3., lines 41-47); display means (L1 through L3) for displaying power saving modes of 8Mhz and 10Mhz in relation to remaining battery capacities (col. 3, lines 67-68 through col. 4 lines 1-23); and power control means, including power supply control circuit 30, which is microprocessor-based and can determine and select power states from a plurality of switches (col.3, lines 35-64; col. 9, lines 39-45; col.7, lines 62-66). Yet, Nanno does not indicate selecting from a plurality of power saving modes.

Art Unit: 2209

Wycoff, however, recognizes a plurality of battery savings by a battery saver circuit 14, 14a in Figures 1 and 2, including: normal battery saving mode (col.4, line 28); a second mode of battery savings (col. 6, line 16); and, a third mode of battery saving (col. 8, line 60; and col. 4, lines 50-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to select and display Wycoff's plurality of power saving modes in Nanno's portable computer, which displays power saving modes in relation to a derived battery capacity, so that computer users could synchronize their remaining use of the portable computer or decrease the level of power-consuming usage before having to recharge the battery. If the references are combined in this manner, then computer users would be provided with the status of the remaining battery power as taught by Nanno. Yet both Nanno and Wycoff fail to teach the claimed calculation and display of a remaining operating time.

Sloan, however, discloses the indicator (28), which displays a remaining time that a battery discharge can continue (col. 1, lines 53-57; col. 2, lines 50-56). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a visual display of remaining operating time (as taught by Sloan) in the modified portable computer (of Nanno and Wycoff), so that computer users can visually see the life expectancy of the battery and change power mode accordingly, or

Art Unit: 2209

recharge the battery. Moreover, since Nanno discloses color LEDs L1 and L2 that indicate and display how long the battery can supply power in different modes based upon the clock frequency (col. 4, lines 7-16, and Figure 6), and teaches comparing means for displaying the status of voltage and a voltage abnormality (col.10, lines 45-50; col.6, lines 64-68), the visual display of operating time (as taught by Sloan) appears to be an improvement well within the same field of endeavor.

As to claim 4, Nanno teaches a control driver 309 for controlling the processing speed and brightness as depicted by the color and flicker or steady-state glow of L1 and L2. Col. 4, lines 7-15.

As to claim 5, Nanno's Figure 1 shows a CRT display 38, which is further illustrated in Figure 5(a).

As to claim 6, it is well-known that LEDs L1-L3 would be operational as long as power was supplied to the system by a battery (31a and 31b); thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to continuously display a power saving mode, as well as the remaining battery capacity.

Claims 7-8 recite the corresponding method for the apparatus of claims 1 and 4-6. Given an apparatus, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a method for which to use or practice

Art Unit: 2209

the corresponding apparatus. Moreover, Nanno teaches a method in Figures 3, 4(a) and 4(b) for generating a signal for the capacity of M-Batt (col.5 lines 27-28) to which a selection and display of the power mode is made (col.5, lines 54-63; col.13, lines 62-63, 68).

Response to Amendment

6. The following address matters of formality with respect to Paper No. 7.

It is acknowledged and appreciated that the applicant has amended the specifications to address the objections to the disclosure made in the last Office Action because of informalities and grammatical errors. The following informalities remain: p. 14, lines 29-31 ("...the processing is slower the electric...is lower."). It is suggested that the applicant insert the --and-- after the term "slower" and before the terms "the electric consumption" (p.14, line 30) in order to overcome the objection. The objection to the disclosure is thus maintained.

The request to pluralize the word "contact" was inadvertently made to p. 16, line 19 in the last Office Action; however, the applicant's diligence in locating and correcting such term on p.6, line 19 is appreciated.

Art Unit: 2209

7. It is acknowledged and appreciated that the applicant has submitted substitute drawings (specifically Figs. 6 and 10, entered into the file wrapper as Paper No. 8), which have been approved by the examiner. However, the remaining figures still contain foreign characters and are of the informal nature. As such, the objection to the drawings made in the previous Office Action is maintained.

From Paper No. 7, it seems that the applicant has the understanding that the submission of substitute Figs. 6 and 10 would overcome the objection to the drawings. It appears that the applicant might be under the mis-understanding that a more up-to-date version of the drawings are a part of the file wrapper; as such, clarification on the matter is requested.

8. It is noted that an amended Abstract has not been received with Paper No. 7, contrary to applicant's assertion on p. 6, line 25 and p. 7, line 1.

9. It is acknowledged that the applicant has cancelled claims 2-3; has amended claims 1 and 7; and has added new claim 8.

Art Unit: 2209

10. The arguments raised in applicant's AMENDMENT (Paper No. 7) with respect to the claims have been considered but are deemed moot in view of the new grounds of rejection.

11. In the last Office Action, recitation of claim 7 was inadvertently omitted from the opening sentence of numbered paragraph 7 ("7. Claims 1 through 6" on page 4 of Paper No. 5); however, the body of numbered paragraph 7 clearly treated the merits of claim 7 under Nanno and Wycoff, as intended by the examiner. Any inconvenience this may have caused is regretted.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Burke (U.S. Patent No. 5,248,929) teaches the display of remaining time of a cellular phone conversation mode, which is directly related to the battery life (col. 1, lines 62-68; col. 2, lines 1-2). Gladstein et al (U.S. Patent No. 5,341,503) discloses in claim 2 that battery information displayed includes relative charge remaining time.

13. Applicant's amendment necessitated the new grounds of rejection, which address new issues of calculating and displaying a remaining operating time of a battery capacity.

Serial Number: 08/300492

-9-

Art Unit: 2209

Accordingly, **THIS ACTION IS MADE FINAL.** See M.P.E.P.

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Loui whose telephone number is (703) 305-4965.



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
GROUP 2600

ML
March 16, 1996